

# CS 2604 Syllabus

## Data Structures and File Processing

### Fall, 2003

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**Sections:** CRN 91382 TTh 11-12:15 McBryde 126  
CRN 91383 TTh 12:30-1:45 McBryde 126  
CRN 91384 MWF 8-8:50 McBryde 126

**Instructors:** Dr. Lenwood S. Heath  
CRN: 91384  
Office Hours: TTh 9:30-11; W 9-10:30; 2160J Torgersen Hall  
Email: heath@vt.edu

Dr. John Paul C. Vergara  
CRNs: 91382 and 91383  
Office Hours: To be announced; 625 McBryde Hall  
Email: jpv@heath.cs.vt.edu

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**Teaching Assistants (GTAs):** To be announced on web site

**Teaching Assistant Office Hours:** To be announced on web site

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**Textbook:** *A Practical Introduction to Data Structures and Algorithm Analysis* —  
Second Edition, Clifford A. Shaffer

**Lecture Notes:** Purchase from A-1 Copies in University Mall

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**Class Homepage:** <http://courses.cs.vt.edu/~cs2604/fall103/index.html>

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**Grade Weighting:** Four Projects: 45% Total  
Midterm and final: 35%  
Pop Quizzes: 5%  
Homework: 15%

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## Honor Code

The Honor Code, and in particular, the document **DEPARTMENTAL POLICY ON KOOFERS, OLD PROGRAMS, CHEATING, AND COMPUTER USE**,

<http://www.cs.vt.edu/academics/ugrad/koof.html>,

applies to this course and will be strictly enforced. Homework and exams **must** be done strictly on an individual basis. Design and coding of programming assignments **must** be done strictly on an individual basis. It is acceptable to discuss with classmates a programming assignment in a general way, i.e., to discuss the nature of the assignment. In other words, you may discuss with your classmates what your program is required to accomplish but not how to achieve that goal using C++. In no way should the individual statements of a program or the steps leading to the solution of the problem be discussed with or shown to anyone except the graduate teaching assistants, the instructor, or the free tutors provided by ACM or UPE. Any discussion of your program source code must be limited to these people.

Always give credit for work that is not entirely your own (e.g., parts of programs or homework answers borrowed from a book).

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## Prerequisites

The Computer Science Department rigorously enforces the prerequisite requirements for all courses. Additionally, for majors or minors in Computer Science, the Department enforces the requirement that all prerequisite Computer Science courses be completed with a grade of C or better. Any student not meeting these requirements (both prerequisites and grade) and not obtaining written permission from the department, must withdraw from the course within the first week of classes. Any student who is subsequently found not to meet these requirements **will be subject to an honors violation report** on the basis of falsification of qualifications. Neither instructors nor anyone else in the CS department are bound to investigate the records of students to ascertain their prerequisite status; this is the student's own responsibility.

In **all** cases, **the student is responsible** for knowing all prerequisite material. This includes a **working knowledge of Unix/Linux**.

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## Assignments and Grading Policy

This is in large part a programming course, and programming projects account for 45% of your grade. You are expected to produce programs that are both readable and correct. The CS Departmental Documentation Standards entitled “Elements of Programming Style”,

<http://courses.cs.vt.edu/~cs2604/fall103/standards.html>,

will be enforced.

One purpose of a data structures course is to teach **efficient algorithms** and use of **appropriate data structures**. Another purpose of this course is to exercise your design abilities. It is not sufficient that a program generate the correct answer and be written with good documentation style. Projects will also be graded in part on **quality of design and organization** and in part on **efficiency**. You should certainly pay attention when the instructors discuss issues related to “good” and “poor” design choices for the projects and aspects of efficiency. These issues directly affect your grade.

Solutions to homework assignments must be typeset using a word processor (e.g., Word), L<sup>A</sup>T<sub>E</sub>X, T<sub>E</sub>X, or a text processor resulting in neatly formatted ASCII text. No handwritten work (including scanned documents) will be accepted.

All programming assignments will have a stated **due date**, a stated **early bonus date** (generally 1-2 days preceding the due date) and a stated **drop dead late submission date** (generally 2-3 days after the due date). Working programming assignments handed in by the specified time on the bonus date will receive a 10% bonus. Programming assignments turned in after the stated due date will be penalized as stated on the assignment. **Programming assignments will not be accepted after the listed drop dead data**, unless an extension has been granted by the instructor in an email to the student and to the GTA in charge of grading that student’s assignment.

Homework assignments are due at the date and time specified. **No late homework assignments will be accepted** unless an extension has been granted by the instructor in an email to the student and to the GTA in charge of grading that student’s homework.

All assignments will be **submitted electronically**. The acceptor program used to receive your assignments will provide the official time stamp used to determine whether a program is on time. Assignments will lose 1 point per minute late until reaching the credit level for the next due date. For example, if a program is worth 100 points, and is turned in 3 minutes after the early bonus due date, then it will receive  $100/10 - 3 = 7$  bonus points. If the program is turned in more minutes late than the amount of the early bonus, but prior to the regular due date, it is simply counted as being turned in on time. A similar calculation applies to projects turned in a few minutes after the regular due date or the late date. **Be warned** — the “few minutes late” penalty is automatic, and there will be no exceptions or mitigating circumstances. **Do not push deadlines**.

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## Requests for Extensions

Requests for extensions for homework or programs must be made at least 24 hours **in advance** of the due date (**not** the late submission date). **Written documentation** is required for illness or a death in the family.

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## Equipment and Programming Language

All programming for this course will be done in C++. The GTAs will compile and test programs using Gnu G++ under Mandrake Linux. It is the responsibility of the student to submit a program that will successfully compile and execute on the specified platform. Computing facilities are available for use in the Departmental Computing Lab in McBryde 124.

**The requirement of C++ under Linux is absolute.** Each student must begin his or her implementation on a Linux platform using the specified C++ compiler. At any time after the start of implementation, the student should have a version of the project, including a Makefile, that will successfully make on one of the Mandrake Linux machines in the departmental lab. It is a good idea, therefore, to maintain a compilable version at all times in a separate directory from the active development directory. Before seeking help from an instructor or teaching assistant with your project code, transfer the directory tree of ALL your development files to a lab machine (if not already there!) and check that you can make it on that machine. Be prepared to log in to a CS lab machine and demonstrate your difficulties to the instructor or teaching assistant.

**The Linux requirement will be strictly enforced.** In fact, if a student brings code from a Windows development environment to an instructor or teaching assistant seeking help, **that student will automatically be penalized 10% of the point value of that assignment and will not be helped.**

Test data files will be provided via the CS2604 WWW site.

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## Class Forum

A class forum for CS 2604 can be found at

[https://forum.cs.vt.edu/forum\\_show.pl](https://forum.cs.vt.edu/forum_show.pl).

by the end of the first week of class. This forum will be the source for all **official announcements** related to the class. Your instructor might remember to announce a test, assignment, or change to spec or due date in class, but there is no guarantee or promise that he will. The class forum is the **only** official, reliable source for announcements, changes, etc., for this course. If something an instructor says in class conflicts with information posted at this forum, then **the forum takes precedence**. Verbal instructions are easily mis-interpreted, nor do they leave a paper trail. **The excuse “my instructor/GTA said something else” will not be accepted.**

It is the responsibility of every student to **check the forum daily.**

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## Special Accommodations

If any student needs special accommodations because of a disability, please contact the instructor during the first week of classes.

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